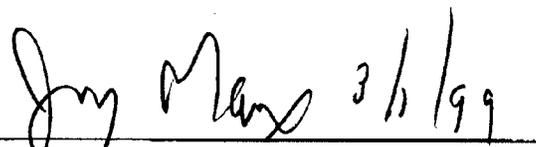
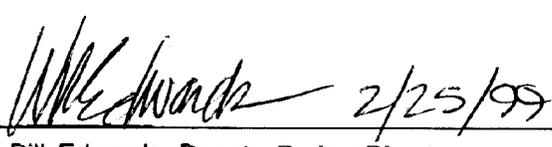


Controlled STAR Note #0273A

| | | | |
|--|----------|--|----------|
| Ernest Orlando Lawrence Berkeley National Laboratory - University of California | | | |
| Controlled STAR Note # | 0273A | Engineering Note # | |
| Author | H. Matis | WBS # | 4.13 |
| | | Pages | 5 |
| | | Date | 11/18/96 |
| PROGRAM-PROJECT-JOB | | | |
| STAR Project | | | |
| TITLE | | | |
| Rack Assignments for Clean Power on the Platform and in The DAQ Room | | | |
| REV. A | 1/22/99 | Added racks for the RICH and conventional systems as requested in ECNs. Also, documentation for the DAQ room and a change in title for the DAQ room was added to the document. | |
|  3/1/99 | | | |
| Jay Marx, Project Director | | | |
|  2/25/99 | | | |
| Bill Edwards, Deputy Project Director | | | |

Rack Assignments for Clean Power on the Platform and in the DAQ room

Howard Matis
Controlled STAR Note 273A

Issued: November 18, 1996

Revision A: January 22, 1999. This revision reflects changes made since issue. In particular added racks for the RICH and conventional systems as requested in ECN's. In addition, the documentation for the DAQ room for the DAQ room has been added. This required a change to the title.

This document specifies the assignments for racks for each subsystem on the first and second floor of the South platform and in the DAQ room. It also specifies a rack-labeling scheme. Figures 1 and 2 show the assigned locations. We label the rows "A" to "C" with row "A" being closest to the magnet. Racks are labeled starting with "1" on the eastern end of the platform and the highest number on the western end. The rack numbering follows the same convention as the official STAR coordinate system where -z is on the East and +z is on the West. Figure 1 shows the labeling for the first floor.



First Floor - South Platform - 1/20/99

Figure 1. Rack assignments for south platform—first floor.

The assignments for the baseline subsystems on the South Platform are summarized by the Table 1:

Table 1 Baseline Racks on the South Platform

| <i>Subsystem</i> | <i>Floor</i> | <i>Row ID</i> | <i>Rack ID</i> | <i>Total Racks</i> |
|----------------------|--------------|---------------|----------------|--------------------|
| TPC | 1 | A | 9 | 1 |
| | 2 | A | 3-7 | 5 |
| RICH | 1 | A | 8 | 1 |
| Trigger | 1 | A | 2-7 | 6 |
| | 1 | B | 3-4 | 2 |
| Slow Controls | 2 | A | 8-9 | 2 |
| TPC -- FEE | 2 | B | 1-9 | 9 |
| SVT | 1 | C | 1-6 | 6 |
| EMC | 2 | A | 2-5 | 4 |
| FTPC | 1 | B | 5-7 | 3 |

The baseline racks are provided on the platform. Any significant change of usage must go through an ECN.

The assignments for upgrades are listed in Table 2. The extra racks that are not specified in this table are situated in places that restrict work on the platform. They will be only assigned upon demonstrated need. Upgrade racks need to be procured. It is important that the new racks match the same dimensions of the existing racks. The existing racks were manufactured by Lyru Engineering of San Leandro, California.

Table 2 Upgrade Racks on the South Platform

| <i>Subsystem</i> | <i>Floor</i> | <i>Row ID</i> | <i>Rack ID</i> | <i>Total Racks</i> |
|----------------------------|--------------|---------------|----------------|--------------------|
| EMC | 2 | C | 6-8 | 4 |
| TOF | 1 | B | 1-2 | 2 |
| Integration Reserve | 1 | C | 7 | 1 |
| Integration Reserve | 2 | C | 1 | 1 |

Subsystem managers cannot change the identity of their assigned rack without going through change control. As this document will be used for items such as specifying electrical plug locations, movement of electronics between racks could cause electrical incompatibles.

Table 3 North Platform - Baseline Assigned Racks

| <i>Subsystem</i> | <i>Floor</i> | <i>Row ID</i> | <i>Rack ID</i> | <i>Total Racks</i> |
|------------------|--------------|---------------|----------------|--------------------|
| Magnet | 2 | A | 1-2 | 2 |

The magnet controls are located on the North Platform, second floor. There are two full sized racks. No cooling water will be provided to those two racks. Table 3 shows the assigned magnet racks. These magnet racks are powered by conventional power.



Second Floor - South Platform - 12/22/98

Figure 2. Rack assignments for south platform—second floor.

DAQ Room

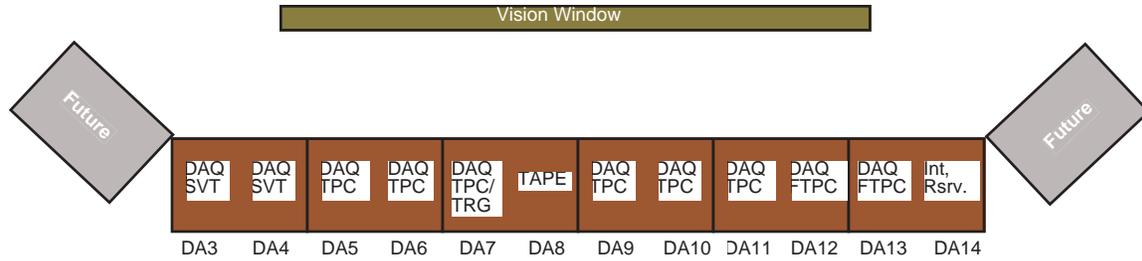
The DAQ room racks mostly contact the VME crates that record the optical fiber links from the detector. The first row is contains mostly these types of electronics. The third row contains miscellaneous communication. The middle is reserved for the higher level trigger. The row closest to the visions window is labeled row DA while the row farthest away is labeled row DC. The most southerly rack is labeled “1.”

Table 3 Racks in the DAQ room

| <i>Subsystem</i> | <i>Row ID</i> | <i>Rack ID</i> | <i>Total Racks</i> |
|---------------------|---------------|----------------|--------------------|
| DAQ/TPC | DA | 3-4 | 2 |
| DAQ/TPC | DA | 5-7 | 3 |
| DAQ/Trigger/TPC | DA | 7 | 1 |
| DAQ | DA | 8 | 1 |
| DAQ/TPC | DA | 9-11 | 2 |
| DAQ/FTPC | DA | 12-13 | 2 |
| Integration Reserve | DA | 14 | 1 |
| RHIC | DC | 1 | 1 |
| Slow Control | DC | 2 | 1 |
| Trigger | DC | 3 | 1 |
| Integration Reserve | DC | 4 | 1 |
| FTPC | DC | 5 | 1 |

Reserved for future expansion is DA1-2 and DA14-15. These racks have not been procured.

Cooling water is only being provided for rack row DA. Other equipment in the DAQ room must be designed for air cooling.



DAQ 1/21/99 (not to scale)

Figure 3. Rack assignments for the DAQ room.